CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD SAN FRANCISCO BAY REGION

ORDER NO. R2-2007-0028

UPDATED WASTE DISCHARGE REQUIREMENTS AND RESCISSION OF ORDERS NO. 86-65 AND 95-229 FOR:

REPUBLIC SERVICES, INC. SOLANO GARBAGE COMPANY LANDFILL CLASS III WASTE DISPOSAL SITE SUISUN CITY, SOLANO COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Water Board), finds that:

DISCHARGER AND LOCATION

- 1. Owner, operator, and discharger named: The closed Solano Garbage Company Landfill is owned by Republic Services, Inc. Republic Services, Inc., is hereinafter referred to as the Discharger.
- Landfill location: Solano Garbage Company Landfill is located in Solano County, one-half mile southwest of Travis Air Force Base and about 1 mile southeast of Suisun City (Figure 1). The landfill occupies the northern 40 acres of a 70-acre parcel located south of Highway 12 near Scally Road. The landfill occurs in a low-lying salt marsh area that lies within the Secondary Management Area of the Suisun Marsh. Much of the area surrounding the landfill is protected under the Suisun Marsh Preservation Act, which was adopted by the California legislature in 1977. This area is under developmental restrictions enforced by the San Francisco Bay Conservation and Development Commission (BCDC). Land uses are predominantly seasonal cattle grazing and open space (marsh and wetlands); however two permitted, active landfills (Potrero Hills Landfill and Tonnesen Pet Cemetery) currently operate within a mile of the Solano Garbage Company Landfill.

OPERATIONAL AND REGULATORY HISTORY

- 3. Operational history: The landfill began waste disposal operations in 1956 and stopped receiving municipal waste in 1985. The landfill continued to receive construction and demolition debris until 1987, when the landfill was replaced by the nearby Potrero Hills Landfill, also owned and operated by Republic Services. Solano Garbage Company Landfill was officially closed on October 1, 1988.
- 4. Regulatory history: The landfill has been regulated by the Water Board under Waste Discharge Requirements (WDR) Order No. 86-65, which was adopted on August 20, 1986, when the landfill was preparing to close. The Water Board also issued a Cleanup and Abatement Order (CAO), No. 95-229, to the landfill on November 15, 1995. This CAO required the Discharger to address a release of volatile organic compounds (VOCs) that was detected in two monitoring wells on the landfill perimeter after the landfill closed. The CAO required the Discharger to install additional groundwater monitoring wells, characterize the lateral extent of VOC contamination, and submit a plan for implementation of corrective actions should certain trigger levels be exceeded in the newly installed wells.

The site is also regulated by the Solano County Department of Resource Management, Environmental Health Division under Marsh Development Permit No. MD-88-09 and Solid Waste Facility Permit No. 48-AA-00-1.

PURPOSE OF ORDER UPDATE

5. This Order updates the landfill's Waste Discharge Requirements, reflecting final closure of the landfill in 1988. This Order rescinds WDR Order No. 86-65 and CAO No. 95-229, and establishes new requirements for monitoring leachate and groundwater quality within and around the landfill footprint.

SITE DESCRIPTION

6. Waste placement: Solano Garbage Company Landfill is unlined and has no leachate extraction system. Wastes were placed into disposal areas excavated directly into the ground surface. Areas in which wastes were placed were excavated in advance of filling to a maximum depth of about 12 feet. Thus, basal portions of the waste were placed below the present elevation of the groundwater table.

Waste types and classification: The landfill is a Class III site, and was designated to receive only residential, commercial and industrial solid waste classified in CCR Title 27, Section 20220(a) as Class III wastes. Class III waste includes but is not limited to: all putresible and nonputresible solid, semi-solid, and liquid wastes including household garbage, green waste, paper, metal, animal waste, industrial wastes, demolition and construction wastes, and soil. The landfill contains an estimated 1.8 million cubic yards of refuse. The Discharger has no records of Class I industrial or toxic wastes being disposed in the landfill. Records indicate that some Class II wastes such as drilling muds, were placed in the landfill. However, the detection of volatile organic compounds (including chlorobenzene, trichloroethene, cis-1,2-dichloroethene, and vinyl chloride) in two landfill perimeter wells indicates that materials containing chlorinated solvents were disposed of inside the landfill.

SITE CLOSURE

- 8. <u>Leachate containment and minimization</u>: Water quality impacts are reduced by surface grading to promote runoff, and by installation and maintenance of a final cover, which minimizes the infiltration of precipitation and generation of landfill leachate.
- 9. <u>Landfill cap</u>: The Discharger submitted a Closure Plan to the Water Board in June 1986. This Closure Plan was approved and incorporated into WDR Order No. 86-65. Some portions of the landfill were closed under final cover in 1984. In 1988, the remainder of the landfill surface was configured to the desired final grade and closed under final cover, with the exception of a small area in the southwest corner of the landfill that was placed under final cover in October 1990. The Discharger has implemented a post-closure maintenance and monitoring program since final closure was achieved.

Portions of the engineered cap that were constructed in 1988 and 1990 consisted of at least 4 feet of soil cover material, consistent with the California landfill regulations as revised in 1986. The cap consisted of 1) a foundation layer of 2 feet minimum thickness consisting of compacted soil placed above compacted waste; 2) a low permeability layer of 1 foot minimum thickness with a hydraulic conductivity of 1 x 10⁻⁶ cm/s or less; 3) an upper protective/vegetative soil layer of 1 foot minimum thickness. Portions of the landfill that were closed in 1984 were generally capped with 3 feet of soil cover. Erosion of cover materials is minimized by planting of shallow-rooted grassy vegetation.

SITE GEOLOGIC AND HYDROGEOLOGIC SETTING

- 10. <u>Stratigraphy</u>: The site is underlain by estuarine Holocene Bay Mud, primarily to the west and north of the site, and Pleistocene, fine-grained alluvial deposits primarily to the east and south. Laterally discontinuous, fine sand lenses deposited in active portions of tidal channels are present locally within the finer-grained sediments.
- Groundwater: Groundwater is present beneath and adjacent to the site in the alluvial 11. sediments. The water table is typically encountered at a depth of about 5 feet below ground surface. Groundwater is brackish due to proximity to, and communication with, saline water in Hill Slough and the tidal marsh. High chloride content and total dissolved solids (TDS) render the water in the immediate vicinity of the site unusable as a drinking water source. Groundwater is believed to flow primarily through the discontinuous sand lenses (Emcon, 1996). The predominant groundwater flow direction is primarily northnorthwestward from the base of the Potrero Hills toward Union Creek and Hill Slough. The groundwater gradient between the northern perimeter of the landfill and Union Creek is very flat, typically less than 0.01 foot per foot. In the immediate vicinity of the landfill, groundwater flow patterns vary seasonally. During the wet season, groundwater elevations outside the landfill perimeter are typically higher than leachate elevations within the landfill, so that groundwater flow is directed inward toward the landfill. During the dry season, the opposite has been observed, and leachate elevations inside thé landfill are greater than groundwater elevations outside the landfill such that the flow direction is outward from the landfill (Conor Pacific, 2001).
- 12. <u>Surface water</u>: The landfill is located in an area that is essentially flat. The elevation of the landfill top is several feet higher than the surrounding marsh. Surface runoff from the site discharges into Union Creek and Hill Slough, which discharge into Suisun Bay. Because of the location in Suisun Marsh, surface water bodies in the vicinity of the landfill are tidal and saline, and are not considered a potential source of drinking water.
- Geologic structure and landfill stability: The nearest active fault is the Green Valley Fault which is located approximately 10 miles west of the site. The Hayward-Rodgers Creek Fault is located approximately 26 miles west of the site, and the San Andreas Fault is located 43 miles west of the site.

WATER QUALITY AND SITE CONTAMINATION

- 14. Ambient water quality: Water Board Resolution 89-39, "Sources of Drinking Water," defines potential sources of drinking water to include all groundwater in the region, with limited exceptions for areas containing high TDS (greater than 3000 mg/L TDS), high background contaminant levels, or those areas with a low yield. Because of the site's location in Suisun Marsh, groundwater underlying and adjacent to the site contains TDS at concentrations greatly exceeding 3,000 mg/L. Between 1986 and 2001, TDS concentrations in the landfill's seven perimeter groundwater monitoring wells ranged between 7,200 and 117,000 mg/L. Monitoring well BG-2, which is located 1,000 feet south of the landfill, is the only well in the vicinity that has yielded any water samples with less than 3,000 mg/L TDS. Because of elevated salinity, shallow groundwater near the site is not considered a potential source of drinking water.
- 15. <u>Impacts to water quality from the landfill</u>: Because of the shallow depth to groundwater and the absence of a liner and leachate extraction system, some commingling of leachate generated at the landfill with underlying groundwater is to be expected at this site. The organic composition of leachate inside the landfill was analyzed in 1987, and was found to contain up to 4,437 micrograms per liter (ug/L) total VOCs. Groundwater monitoring initiated in 1987 around the landfill perimeter indicated a release of landfill leachate containing VOCs.

Between 1987 and 1993, perimeter monitoring well G-1, located near the northwest corner of the landfill, yielded samples containing very low concentrations of the following VOCs: 1,1-dichloroethane, cis-1,2-dichloroethene, benzene, vinyl chloride, methylene chloride, dichlorodifluoromethane (Freon 12), and trichlorofluoromethane (Freon 11). Total VOC concentrations in well G-1 during this time did not exceed 23.4 ug/L, with most of this chemical mass consisting of the Freon compounds.

Perimeter monitoring well G-2, located on the north side of the landfill, contained VOCs at higher concentrations. Groundwater samples from well G-2 have contained the following VOCs: vinyl chloride, trichloroethene (TCE), cis-1,2-dichloroethene (DCE), 1,1-dichloroethane, and chlorobenzene. Between 1987 and 1993, total VOC concentrations in well G-2 ranged between 123 ug/L and 1,970 ug/L, with VOC concentrations generally declining during this period. Most of the VOC mass in well G-2 samples has consisted of vinyl chloride and cis-1,2-DCE, both of which are degradation products of TCE. This suggests burial of solvent-contaminated materials, as TCE was a commonly used degreaser and solvent during the 1960's and 1970's.

In December 1993, the Water Board issued a letter to the Discharger requiring establishment of a corrective action program to address the VOC release from the

landfill. The Discharger responded with a proposal to install a slurry cutoff wall to prevent migration of the VOC plume. However, further characterization and enhanced groundwater monitoring performed by the landfill in 1994 and 1995 indicated the lateral extent of VOC migration extended no more than 50 feet to the west of the landfill perimeter in the vicinity of well G-1, and no more than 50 feet to the north of the landfill in the vicinity of well G-2. Because there was no indication of contaminant migration, the slurry wall was not installed.

16. Cleanup and Abatement Order No. 95-229: On November 15, 1995, the Water Board adopted Cleanup and Abatement Order No. 95-229, which required the discharger to submit a revised corrective action plan and to further enhance the groundwater monitoring program for the landfill. The Order also established trigger levels for new groundwater sentry wells that would require implementation of remedial actions if the trigger levels were exceeded. The trigger levels for VOCs were set at the Practical Quantitation Limit (PQL) for each single compound or 1.0 ug/L per compound if multiple compounds were detected. In January 1997, in response to the Order, the discharger installed nine new off-site groundwater monitoring wells (G-8 through G-16) around the northwestern corner of the landfill. With permission from the adjacent landowner, each new well was installed about 90 feet out from the landfill perimeter. These wells were intended to serve as sentry wells to detect chemical evidence of VOC plume migration.

Leachate and groundwater monitoring performed between 1987 and 2006 has shown the following conditions and trends regarding the VOC release:

- a. Total VOC concentrations inside the landfill, as indicated by sampling of leachate wells GR-2 through GR-5, dropped from a maximum concentration of 4,437 ug/L in 1987 to a maximum of 98 ug/L in 2001.
- b. The original areas impacted by VOCs in the vicinity of wells G-1 and G-2 in the 1980s did not expand.
- c. Sentry wells G-8 through G-16, located 90 feet from the landfill perimeter, never showed the presence of VOCs; therefore the trigger levels set in CAO No. 95-229 were not exceeded. For this reason, remedial actions were not required for compliance with the order and were not implemented.
- d. VOC concentrations in wells G-1 and G-2 have progressively declined between 1987 and 2006. Total VOC concentrations in the vicinity of well G-1 never exceeded 36 ug/L and have remained below 2 ug/L since 2001. Total VOC concentrations in well G-2 have remained below 135 ug/L since 2001. The total VOC concentrations reported for well G-2 in the 4th Quarter 2006 (52.3 ug/L) were among the lowest ever reported.
- e. Because drinking water standards do not apply to groundwater in this area (see finding 14), VOC concentrations have been compared against the Water Board's.

Environmental Screening Levels (ESLs) for protection of the Surface Water Estuarine Habitat. The concentrations of TCE and cis-1,2-DCE in well G-2 have never exceeded the Surface Water Estuarine Habitat ESLs for these chemicals. Vinyl chloride concentrations have remained below the Surface Water Estuarine Habitat ESL for vinyl chloride (530 ug/L) since January 1991.

On the basis of these conditions, it appears that the source of the VOC release inside the landfill has dissipated, and the concentrations of VOCs outside the landfill perimeter are attenuating and the lateral extent of the groundwater impacts is shrinking. No additional work is required to comply with the CAO and it is appropriate to rescind CAO No. 95-229. This Order requires continued corrective action monitoring to document the attenuation of VOCs in the vicinity of wells G-1 and G-2.

BASIN PLAN

17. The Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) is the Water Board's master water quality control planning document. It designates beneficial uses and water quality objectives for waters of the State, including surface waters and groundwater. It also includes programs of implementation to achieve water quality objectives. The Basin Plan was duly adopted by the Water Board and approved by the State Water Resources Control Board, U.S. EPA, and the Office of Administrative Law where required. The latest version was effective as of December 22, 2006.

BENEFICIAL USES

- 18. The beneficial uses of groundwater beneath the landfill include:
 - a. Agricultural supply (non-potable)
 - b. Industrial process and service supply
 - c. Groundwater recharge
 - d. Discharge to surface water bodies
- 19. The beneficial uses of Union Creek and Hill Slough include:
 - a. Wildlife and estuarine habitat
 - b. Contact and non-contact water recreation
 - c. Fish migration and spawning
 - d. Preservation of rare and endangered species
 - e. Groundwater recharge
 - f. Agricultural supply (non-potable)

MONITORING PROGRAMS

- 20. Groundwater monitoring Since 1987, groundwater around the landfill has been monitored quarterly by 7 groundwater monitoring wells on the landfill perimeter (Wells G-1 through G-7) and by two wells located outside the landfill footprint (Well BG-1, located about 230 feet east of the landfill's northeastern corner, and Well BG-2, about 1,000 feet south of the landfill's southwestern corner). Site monitoring well locations are indicated on Figure 2. All of these groundwater monitoring wells are screened though the upper hydrostratigraphic unit, which includes alluvial and estuarine muds, clays, and isolated sand lenses. The wells have been monitored on a quarterly basis for VOCs and general water quality parameters. Between 1997 and 2004, nine additional monitoring wells (G-8 through G-16) installed on the adjacent property along the west and north sides of the landfill were also monitored. Off-site wells G-8 through G-16 and P-9 through P-14 were removed at the request of the adjacent landowner in 2004.
- Leachate monitoring WDR Order No. 86-65 did not specify a program for leachate monitoring. Leachate elevations are measured at five monitoring wells in the landfill interior (Wells GR-1 through GR-5). The leachate monitoring wells are designed to be used for leachate extraction if necessary. The organic composition of leachate has been analyzed four times (1987, twice in 1991, and 2001) at four of these wells (GR-2 through GR-5). In 1987, total VOCs in landfill leachate ranged from 226 to 4,437 ug/L. In 1991, the maximum total VOC concentration was 175 ug/L, while in 2001, the maximum total VOC concentration was 98 ug/L. The results of groundwater monitoring outside the landfill indicate that landfill leachate is largely contained within the area of the waste disposal, and that the leachate has not impacted groundwater outside the landfill footprint, with the exception of the limited VOC detections in perimeter wells G-1 and G-2, as discussed in Findings 15 and 16.
- 22. <u>Landfill gas monitoring</u>: The landfill does not have a landfill gas collection system, and landfill gas has not been routinely monitored. Installation of a landfill gas collection system and routine landfill gas monitoring have not been required for the landfill.
- 23. Surface water monitoring: Surface water quality has not been routinely monitored near this landfill. A limited surface water monitoring program consisting of quarterly sampling at four surface water monitoring locations was implemented as part of the Solid Waste Water Quality Assessment Test (SWAT) program in 1990-1991. The surface water samples collected under the SWAT program did not yield any VOC detections, and surface water has not been routinely sampled since completion of the SWAT program.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

- 24. <u>CEQA</u>: This action is an order to enforce the laws and regulations administered by the Board. As such, this action is categorically exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to Section 15301 of the Resources Agency Guidelines.
- 25. <u>Public notice</u>: The Water Board has notified the Discharger and interested agencies and persons of its intent to adopt revised, updated Waste Discharge Requirements for the Discharger and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
- 26. <u>Public meeting</u>: The Water Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the Discharger, its agents, successors and assigns shall meet the applicable provisions contained in Title 27, Division 2, Subdivision 1 of the California Code of Regulations and Division 7 of the California Water Code and shall comply with the following:

A. PROHIBITIONS

- 1. No additional waste shall be deposited or stored at this site.
- 2. The relocation of wastes to or from any waste management unit shall not create a condition of pollution or nuisance as defined in Section 13050 (1) and (m) of the California Water Code. Any relocated waste shall not be placed in or allowed to contact ponded water from any source whatsoever. Wastes shall not be relocated to any location where they can be discharged into waters of the State or of the United States.
- 3. Leachate and ponded water containing leachate or in contact with waste shall not be discharged to waters of the State or of the United States unless specifically authorized under an NPDES permit.
- 4. Buildup or mounding of leachate levels within the landfill shall be prevented by leachate extraction, as necessary. The depth of leachate shall be kept at levels sufficient to prevent migration of leachate from the landfill.
- 5. The creation of any new waste management units at this landfill is prohibited.

- 6. The Discharger shall not excavate within or reconfigure any existing waste management unit without prior Water Board approval.
- 7. The Discharger shall not perform any intrusive activities on the landfill surface that have the potential to negatively affect the integrity and proper function of the landfill cap, such as digging or trenching, without prior Water Board approval.
- 8. The Discharger shall not disc the landfill cap. Alternate methods of controlling vegetative growth, which do not affect the integrity of the landfill cap, shall be utilized.
- 9. The Discharger, or any future owner or operator of the site, shall not cause the following conditions to exist in waters of the State at any place outside the waste management facility:
 - a. Surface Waters
 - Floating, suspended, or deposited macroscopic particulate matter or foam;
 - Bottom deposits or aquatic growths;
 - Alteration of temperature, turbidity, or apparent color beyond natural background levels;
 - Visible, floating, suspended or deposited oil or other petroleum products;
 - Toxic or other deleterious substances to be present in concentrations or quantities which may cause deleterious effects on aquatic biota, wildlife or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentrations.
 - b. Groundwater
 - Further degradation of groundwater quality;
 - Increasing lateral extent or concentrations of existing groundwater impacts.

B. SPECIFICATIONS

- 1. All reports pursuant to this order shall be prepared under the supervision of a California registered professional civil engineer, professional geologist or certified engineering geologist.
- 2. The site shall be protected from any washout or erosion of wastes or cover material and from inundation that could occur as a result of a 100-year, 24-hour

- precipitation event, or as the result of flooding with a return frequency of 100 years.
- 3. Internal site drainage from surface sources shall not contact or percolate through wastes during the life of the site.
- 4. The existing containment, drainage, and monitoring systems at the facility shall be maintained as long as leachate is present and poses a threat to water quality.
- 5. The Discharger shall assure that the structures which control leachate, surface drainage, erosion, and landfill gas are constructed and maintained to withstand conditions generated during the maximum probable earthquake.
- 6. The final cap system shall be maintained to promote lateral runoff and prevent ponding and infiltration of water.
- 7. The Discharger shall analyze the samples from any groundwater or leachate wells as outlined in the Discharge Monitoring Program (Attachment A).
- 8. The Discharger shall install any reasonable additional groundwater and leachate monitoring devices required to fulfill the terms of any future Discharge Monitoring Program issued by the Executive Officer.
- 9. Landfill gases shall be adequately vented or otherwise controlled to minimize the danger of explosion, adverse health effects, nuisance conditions, or the impairment of beneficial uses of water.
- 10. The Discharger shall maintain all devices or designed features installed in accordance with this Order, such that they continue to operate as intended without interruption.
- 11. The Water Board shall be notified immediately of any failure occurring in the waste management unit. Any failure that threatens the integrity of containment features or the landfill shall be promptly corrected after approval of the method and schedule by the Executive Officer.
- 12. The Discharger shall comply with all applicable provisions of Title 27 that are not specifically referred to in this Order.
- 13. The Discharger shall maintain the facility so as to prevent a statistically significant increase in water quality parameters at points of compliance as provided in Section 20420 of Title 27.

14. All monitoring instruments and devices used by the Discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy.

C. PROVISIONS

- 1. The Discharger shall comply immediately, or as prescribed by the time schedule below, with all Prohibitions, Specifications and Provisions of this Order. All required submittals must be acceptable to the Executive Officer. The Discharger must also comply with all conditions of these WDRs. Violations may result in enforcement actions, including Water Board orders or court orders requiring corrective action or imposing civil monetary liability, or in modification or revocation of these waste discharge requirements by the Water Board. [CWC Section 13261, 13263, 13265, 13267, 13268, 13300, 13301, 13304, 13340, 13350].
- 2. All technical and monitoring reports required pursuant to this Order are being requested pursuant to Section 13267 of the California Water Code. Failure to submit reports in accordance with schedules established by this Order or failure to submit a report of sufficient technical quality acceptable to the Executive Officer may subject the Discharger to enforcement action pursuant to Section 13268 of the California Water Code.
- 3. Electronic Reporting Format: In addition to print submittals, all reports submitted pursuant to this Order must be submitted as electronic files in PDF format. The Water Board has implemented a document imaging system, which is ultimately intended to reduce the need for printed report storage space and streamline the public file review process. Documents in the imaging system may be viewed, and print copies made, by the public, during file reviews conducted at the Water Board's office. PDF files can be created by converting the original electronic file format (e.g., Microsoft Word) and/or by scanning printed text, figures & tables. Upon request by Water Board staff, monitoring results, including water level measurements, sample analytical results, coordinates, elevations, etc., shall be provided electronically in Microsoft Excel® or similar spreadsheet format. This format facilitates data computations and/or plotting that Water Board staff may undertake during their review. Data tables submitted in electronic spreadsheet format will not be included in the case file for public review. All electronic files, whether in PDF or spreadsheet format, shall be submitted via the Water Board's file transfer protocol (FTP) site, email (only if the file size is less than 3 MB) or on CD. CD submittals may be included with the

print report. Email notification should be provided to Water Board staff whenever a file is uploaded to the Water Board's FTP site.

WATER QUALITY IMPACTS AND LANDFILL MONITORING

4. ANNUAL MONITORING REPORT

COMPLIANCE DATE: January 31 of each year

The Discharger shall submit an Annual Monitoring Report, acceptable to the Executive Officer, by January 31 of each year in accordance with the attached Discharge Monitoring Program (Attachment A). The annual report to the Water Board shall cover the previous calendar year as described in Part A of the Monitoring Program. In addition to the requirements outlined in Attachment A, this report shall also include the following: location and operational condition of all leachate and groundwater monitoring wells and a site map delineating groundwater and leachate levels for each monitoring event.

5. SEMI-ANNUAL MONITORING REPORT

COMPLIANCE DATE: January 31 and July 31 of each year

The Discharger shall submit semi-annual monitoring reports, no later than January 31 and July 31 of each year in accordance with the attached Discharge . Monitoring Program (Attachment A). The January 31 semi-annual report may be combined with the annual report.

6. ANNUAL MAINTENANCE REPORT

COMPLIANCE DATE: July 31 of each year

The Discharger shall submit a technical report to the Board, acceptable to the Executive Officer, detailing the repair and maintenance activities that need to be completed prior to the commencement of the next rainy season (starting October 15 of each year). This letter report shall also include a description and schedule for repair and maintenance activities, and a cost analysis detailing the anticipated expense for all repairs, maintenance and monitoring during the next 12 months. Repair and maintenance estimates shall be based on rainy season inspections conducted throughout the winter as required in the Discharge Monitoring Program.

7. POST-EARTHQUAKE INSPECTION AND CORRECTIVE ACTION REPORTS

COMPLIANCE DATE: Within 72 hours of the occurrence of an earthquake of magnitude 6 or higher

The Discharger shall submit a technical report, acceptable to the Executive Officer, which describes implementation of the Post Earthquake Inspection and Corrective Action Plan for the landfill for any earthquake greater than Richter Magnitude 6 at or within 30 miles of the landfill. The report shall describe the results of the post earthquake inspection and any corrective actions necessary to insure landfill stability and prevent water quality impacts which may result from seismic events.

8. WELL INSTALLATION REPORT

COMPLIANCE DATE:

45 days following completion of well installation

activities

The Discharger shall submit a technical report, acceptable to the Executive Officer, that provides well construction details, geologic boring logs, and well development logs for all new wells installed as part of the Discharge Monitoring Program (Attachment A).

9. CHANGE IN SITE CONDITIONS

NOTIFICATION DUE DATE:

Immediately upon occurrence

REPORTING DUE DATE:

30 days after initial notification

The Discharger shall immediately notify the Water Board of any flooding, ponding, settlement, equipment failure, slope failure, exposure of waste, liner leakage, or other change in site conditions that could impair the integrity of the landfill cap, waste or leachate containment facilities, and/or drainage control structures and shall immediately make repairs. Within 30 days, the Discharger shall prepare and submit a technical report, acceptable to the Executive Officer, documenting the corrective measures taken.

10. The Discharger shall maintain a copy of these waste discharge requirements and these requirements shall be available to operating personnel at all times [CWC Section 13263].

- 11. The Discharger shall permit the Water Board or its authorized representative, upon presentation of credentials:
 - a. Immediate entry upon the premises on which wastes are located or in which any required records are kept.
 - b. Access to copy any records required under the terms and conditions of this order.
 - c. Inspection of any treatment equipment, monitoring equipment, or monitoring methods required by this order or by any other California State Agency.
 - d. Sampling of any discharge or groundwater governed by this Order.
- In the event of any change in control/operator or ownership of land or parcel of 12. land, or waste discharge facilities presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to this office. The Discharger must notify the Executive Officer, in writing at least 30 days in advance of any proposed transfer of this Order's responsibility and coverage to a new discharger. The notice must include a written agreement between the existing and new discharger containing a specific date for the transfer of this order's responsibility and coverage between the current discharger and the new discharger. This agreement shall include an acknowledgment that the existing discharger is liable for violations up to the transfer date and that the new discharger is liable from the transfer date on. [CWC Sections 13267 and 13263]. The request must contain the requesting entity's full legal name, the address and telephone number of the persons responsible for contact with the Board and statement. Failure to submit the request shall be considered a discharge without requirements, a violation of the California Water Code.
- This Order is subject to Water Board review and updating, as necessary, to comply with changing State and Federal laws, regulations, policies, or guidelines; changes in the Water Board's Basin Plan; or changes in the discharge characteristics [CWC Section 13263]. The Executive Officer may specify minor changes to the Discharge Monitoring Plan as necessary.
- 14. Where the Discharger becomes aware that if it failed to submit any relevant facts in a Report of Waste Discharge (ROWD) or submitted incorrect information in a ROWD or in any report to the Water Board, it shall promptly submit such facts or information [CWC Sections 13260 and 13267].
- 15. This Order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission

- of any act causing injury to persons or property, do not protect the Discharger from its liability under Federal, State or local laws, nor do they create a vested right for the to continue the waste discharge [CWC Section 13263(g)].
- 16. Provisions of these waste discharge requirements are severable. If any provision of these requirements is found invalid, the remainder of these requirements shall not be affected.
- The Discharger shall, at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with conditions of this Order. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this order [CWC Section 13263(f)].
- Except for a discharge which is in compliance with these waste discharge 18. requirements, any person who, without regard to intent or negligence, causes or permits any hazardous substance or sewage to be discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, shall, as soon as (a) that person has . knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the Office of Emergency Services of the discharge in accordance with the spill reporting provision of the state toxic disaster contingency plan adopted pursuant to Article 3.7 (commencing with Section 8574.7) of Chapter 7 of Division 1 of Title 2 of the Government Code, and immediately notify the State Board or the Board of the discharge. This provision does not require reporting of any discharge of less than a reportable quantity as provided for under subdivisions (f) and (g) of Section 13271 of the Water Code unless the Discharger is in violation of a prohibition in the applicable water Ouality Control Plan [CWC Section 13271(a)].
- 19. The Discharger shall report any noncompliance that may endanger public health or the environment. Any such information shall be provided orally to the Executive Officer within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided within five days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the

Solano Garbage Company Landfill Order No. R2-2007-0028

noncompliance has not been corrected; the anticipated time it is expected to continue and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Executive Officer, or an authorized representative, may waive the written report on a case-by-case basis if the oral report has been received within 24 hours [CWC Sections 13263 and 13267].

20. This Water Board's Order Nos. 86-65 and 95-229 are hereby rescinded.

I, Bruce H. Wolfe, Executive Officer, do hereby certify that the foregoing is a full, complete, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on April 11, 2007.

Bruce H. Wolfe

Executive Office

Figures:

Figure 1 – Site Location Map

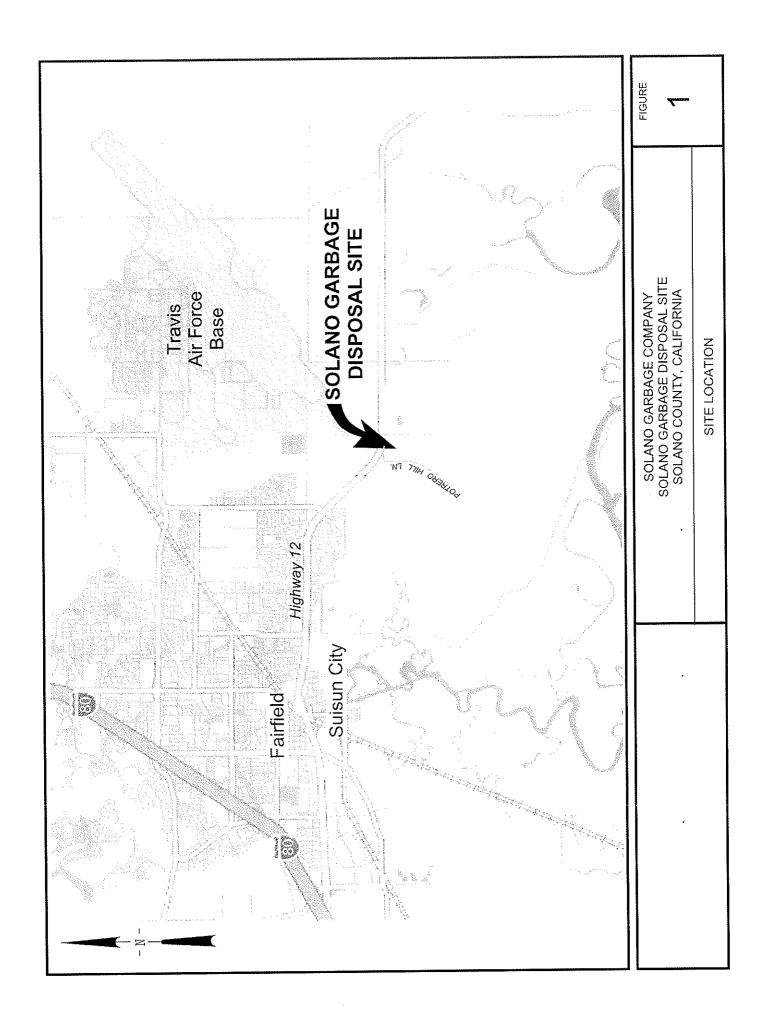
Figure 2 – Site Layout Map

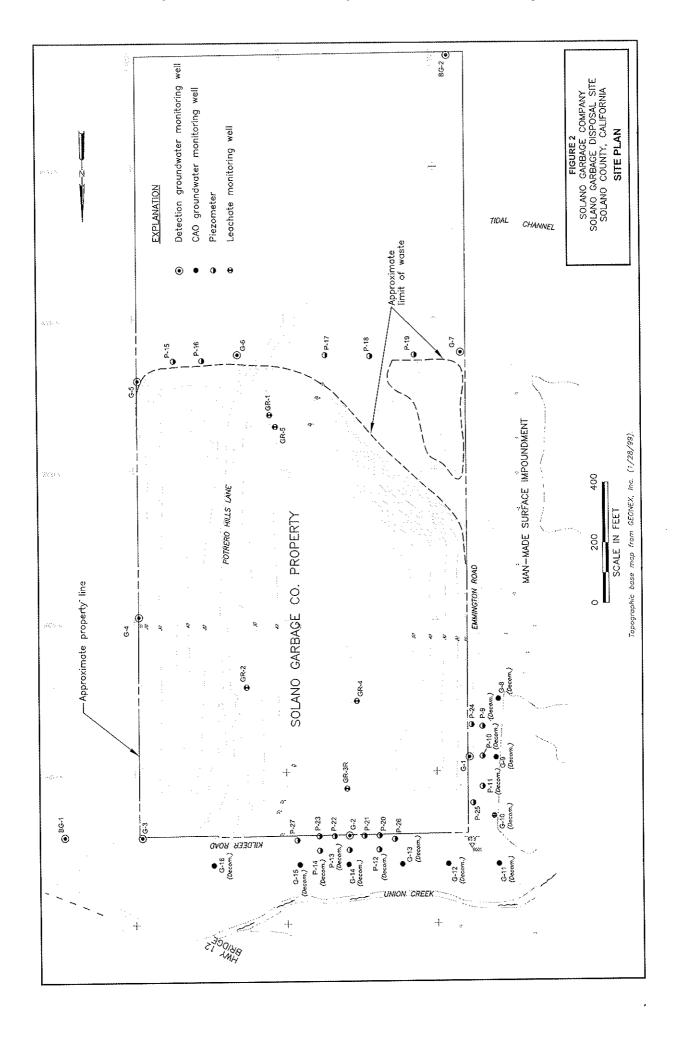
Attachment:

Attachment A - Discharge Monitoring Program

Solano Garbage Company Landfill Order No. R2-2007-0028

FIGURES





ATTACHMENT A

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD SAN FRANCISCO BAY REGION

DISCHARGE MONITORING PROGRAM

FOR

SOLANO GARBAGE COMPANY LANDFILL REPUBLIC SERVICES, INC. SUISUN CITY, SOLANO COUNTY

ORDER NO. RB2-2007-0028

CONSISTS OF

PART A

AND

PART B

PART A

A. GENERAL

Reporting responsibilities of waste discharges are specified in Sections 13225(a), 13267(b), 13383, and 13387(b) of the California Water Code and this Board's Resolution No. 73-16. This Discharge Monitoring Program is issued in accordance with Title 27 of the California Code of Regulations.

The principal purposes of a discharge monitoring program are: (1) to document compliance with waste discharge requirements and prohibitions established by the Board, (2) to facilitate self-policing by the waste dischargers in the prevention and abatement of pollution arising from waste discharge, (3) to develop or assist in the development of standards of performance, and toxicity standards, (4) to assist the dischargers in complying with the requirements of Title 27.

B. SAMPLING AND ANALYTICAL METHODS

Sample collection, storage, and analyses shall be performed according to the most recent version of EPA Standard Methods and in accordance with an approved sampling and analysis plan.

Water and waste analysis shall be performed by a laboratory approved for these analyses by the State of California. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his/her laboratory and all reports of such work submitted to the Board shall be signed by a duly authorized representative of the laboratory.

All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements.

C. DEFINITION OF TERMS

- 1. A grab sample is a discrete sample collected at any time.
- 2. Receiving waters refers to any surface that actually or potentially receives surface or groundwaters that pass over, through, or under waste materials or contaminated soils. In this case the groundwater beneath and adjacent to the landfill areas and the surface runoff from the site are considered receiving waters.

3. Standard observations refer to:

a. Receiving Waters

- 1) Floating and suspended materials of waste origin: presence or absence, source, and size of affected area.
- 2) Discoloration and turbidity: description of color, source, and size of affected area.
- 3) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.
- 4) Evidence of beneficial use: presence of water associated wildlife.
- 5) Flow rate
- 6) Weather conditions: wind direction and estimated velocity, total precipitation during the previous five days and on the day of observation.
- b. Perimeter of the waste management unit.
 - 1) Evidence of liquid leaving or entering the waste management unit, estimated size of affected area and flow rate. (Show affected area on map)
 - 2) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.
 - 3) Evidence of erosion and/or daylighted refuse.
- c. The waste management unit.
 - 1) Evidence of ponded water at any point on the waste management facility.
 - 2) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.
 - 3) Evidence of erosion, slope or ground movement, and/or daylighted refuse.
 - 4) Adequacy of access road
 - 5) Standard Analysis and measurements are listed on Table A (attached)

D. SAMPLING, ANALYSIS, AND OBSERVATIONS

The Discharger is required to perform sampling, analyses, and observations in groundwater and leachate per the general requirements specified in Section 20415(e) of Title 27.

E. RECORDS TO BE MAINTAINED

Written reports shall be maintained by the Discharger or laboratory, and shall be retained for a minimum of five years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or when requested by the Board. Such records shall show the following for each sample:

- 1. Identity of sample and sample station number.
- 2. Date and time of sampling.
- 3. Date and time that analyses are started and completed, and name of the personnel performing the analyses.
- 4. Complete procedure used, including method of preserving the sample, and the identity and volumes of reagents used.
- 5. Calculation of results.
- 6. Results of analyses, and detection limits for each analysis.

F. REPORTS TO BE FILED WITH THE BOARD

1. Electronic Reporting Format

In addition to print submittals, all SMRs submitted pursuant to this SMP must be submitted as electronic files in PDF format. The Water Board has implemented a document imaging system, which is ultimately intended to reduce the need for printed report storage space and streamline the public file review process. Documents in the imaging system may be viewed, and print copies made, by the public, during file reviews conducted at the Water Board's office. PDF files can be created by converting the original electronic file format (e.g., Microsoft Word) and/or by scanning printed text, figures and tables. Upon request by Water Board staff, monitoring results, including water level measurements, sample analytical results, coordinates, elevations, etc., shall be provided electronically in Microsoft Excel® or similar spreadsheet format. This format facilitates data computations and/or plotting that Water Board staff may undertake during their review. Data tables submitted in electronic spreadsheet format will not be included in the case file for public review. All electronic files, whether in PDF or spreadsheet format, shall be submitted via the Water Board's file transfer protocol (FTP) site, email (only if the file size is less than 3 MB) or on CD. CD submittals may be included with the print report. Email notification should be provided to Water Board staff whenever a file is uploaded to the Water Board's FTP site.

2. Monitoring Reports

Written monitoring reports shall be filed by January 31 and July 31 of each year. In addition an annual report shall be filed by January 31 of each year. The semi-annual monitoring report due on January 31 of each year can be combined with the annual report. The reports shall be comprised of the following:

a. Letter of Transmittal

A letter transmitting the essential points in each report should accompany each report. Such a letter shall include a discussion of any requirement violations found during the last report period, and any actions taken or planned for correcting the violations. If the Discharger has previously submitted a detailed time schedule for correcting requirement violations, a reference to the correspondence transmitting such schedule will be satisfactory. If no violations have occurred in the last report period this shall be stated in the letter of transmittal. Monitoring reports and the letter transmitting the monitoring reports shall be signed by a principal executive officer at the level of vice president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge originates. The letter shall contain a statement by the official, under penalty of perjury, that to the best of the signer's knowledge the report is true, complete, and correct.

- b. Each monitoring report shall include a compliance evaluation summary. The summary shall contain:
 - 1) A graphic description of the direction of groundwater flow under/around the waste management unit, based upon the past and present water level elevations and pertinent visual observations.
 - The method and time of water level measurement, the type of pump used for purging, pump placement in the well; method of purging, pumping rate, equipment and methods used to monitor field pH, temperature, and conductivity during purging, calibration of the field equipment, results of the pH, temperature conductivity and turbidity testing, well recovery time, and method of disposing of the purge water.
 - 3) Type of pump used, pump placement for sampling, a detailed description of the sampling procedure; number and description of equipment, field and travel blanks; number and description of duplicate samples; type of sample containers and preservatives

- used, the date and time of sampling, the name and qualifications of the person actually taking the samples, and any other observations.
- 4) A written discussion of the groundwater analyses indicating any change in the quality or characteristics of the groundwater.
- c. A comprehensive discussion of the compliance record and status, as well as any corrective actions taken or planned which may be needed to bring the Discharger into full compliance with the Waste Discharge Requirements and 27CCR.
- d. A map or aerial photograph shall accompany each report showing observation and monitoring station locations.
- e. Laboratory statements with the results of analyses specified in Part B must be included in each report. The director of the laboratory whose name appears on the laboratory certification shall supervise all analytical work in his/her laboratory and all reports of such work submitted to the Board shall be signed by a duly authorized representative of the laboratory.
 - 1) The methods of analyses and detection limits must be appropriate for the expected concentrations. Specific methods of analyses must be identified. If methods other than EPA approved methods or Standard Methods are used, the exact methodology must be submitted for review and approved by the Executive Officer prior to use.
 - In addition to the results of the analyses, laboratory quality assurance/quality control (QA/QC) information must be included in the monitoring report. The laboratory QA/QC information should include the method, equipment and analytical detection limits; the recovery rates; an explanation for any recovery rate that are outside laboratory control limits; the results of equipment and method blanks; the results of spiked and surrogate samples; the frequency of quality control analysis; and the name and qualifications of the person(s) performing the analyses.
- f. An evaluation of the effectiveness of the leachate monitoring facilities, which includes an evaluation of leachate buildup within the disposal units and sump areas, a summary of leachate volumes removed from the units, and a discussion of the leachate disposal/treatment methods utilized.
- g. A summary and certification of completion of all standard observations for the waste management unit, the perimeter of the waste management unit, and the receiving waters.

- h. The Annual Monitoring Report shall be submitted to the Board no later than January 31 covering the previous year. The Report shall include, but is not limited to, the following:
 - i. A graphical presentation of the analytical data [Board-approved alternate procedure per 27CCR, Section 20415(e)(14)] for monitoring locations that have shown detectable concentrations during two consecutive monitoring events, or greater than ten percent detection frequency for any organic compound. Graphical representation must be provided for monitoring locations with metals and general chemistry analytical parameters that have an increasing trend for three consecutive monitoring events;
 - ii. A tabular summary of all the monitoring data obtained during the previous year;
 - iii. A comprehensive discussion of the compliance record, and the corrective actions taken or planed which may be needed to bring the Discharger into full compliance with the waste discharge requirements;
 - iv. A written summary of the groundwater analyses indicating any change in the quality of the groundwater; and
 - v. An evaluation of the effectiveness of the leachate monitoring/control facilities, which includes an evaluation of leachate buildup within the disposal units, a summary of leachate control volumes removed from the units, and a discussion of the leachate disposal methods utilized.
- i. Tabular and graphical summaries of the monitoring data obtained during the previous year; the annual report should be accompanied by a compact disc, MS-EXCEL format, tabulating the year's data.

3. Contingency Reporting

A report shall be made by telephone of any seepage from the disposal area immediately after it is discovered. A written report shall be filed with the Board within five days thereafter. This report shall contain the following information:

- a) a map showing the location(s) of discharge if any;
- b) approximate flow rate;
- c) nature of effects; i.e. all pertinent observations and analyses; and
- d) corrective measures underway, proposed, or as specified in the Waste Discharge Requirements.

4. Well Logs

A boring log and a monitoring well construction log shall be submitted for each new sampling well established for this monitoring program, as well as a report of inspection or certification that each well has been constructed in accordance with the construction standards of the Department of Water Resources. These shall be submitted within 45 days after well installation.

G. WATER QUALITY PROTECTION STANDARDS

- 1. <u>Constituents of Concern</u>: The Constituents of Concern (COC) for groundwater are those listed in Table 1 of this Discharge Monitoring Program.
- 2. Concentration Limits: Concentration Limits (CLs) for each COC are shown in Table 2. The CLs were set at the PQLs for most VOCs. CLs were set above the PQLs for certain constituents that were: 1) common laboratory contaminants (acetone, methylene chloride, bromoform, chloroform, and bis(2-ethylhexyl)phthalate); 2) derived from field sampling equipment and materials; and 3) periodically detected in some wells as a result of COC migration prior to implementation of corrective measures or as result of the presence of waste fill outboard of containment structures. The CLs are well below the Water Board's Environmental Screening Levels for protection of Estuarine Habitat and therefore are protective of human health and water quality in Union Creek and Hill Slough.
- 3. Monitoring Points: Monitoring Points for the landfill are the wells identified in Table 1 of this Discharge Monitoring Program. Leachate wells GR-3R and GR-4 shall be exempt from compliance with CLs because they monitor leachate inside the landfill. Because landfill operations predate collection of groundwater chemistry data at this site, background water quality monitoring locations do not exist; therefore, intra-well comparisons will be used for evaluating monitoring data. For those areas where COCs greater than the CLs existed prior to corrective measures (landfill closure), monitoring will be conducted to demonstrate that the levels of COCs have either stabilized or are decreasing.
- 4. <u>Point of Compliance</u>: The Point of Compliance for this facility is the vertical surface that extends from the outside edge of the lateral containment structures through the uppermost aquifer underlying the unit.

Part B

1. DESCRIPTION OF OBSERVATION STATIONS AND SCHEDULE OF OBSERVATIONS

A. GROUNDWATER and LEACHATE MONITORING:

Semi-Annual Report: due January 31 and July 31 of each year due January 31 of each year

Groundwater levels shall be measured semi-annually using all available groundwater and leachate wells, and piezometers P-15 through P-27. Groundwater shall be sampled and analyzed according to the schedule specified in Table 1. The Groundwater Monitoring Program includes two components: 1) a Detection Monitoring Program that includes annual sampling of wells G-1 through G-7; and 2) a Corrective Action Monitoring Program that includes semi-annual sampling of groundwater wells G-1 and G-2, leachate wells GR-3R and GR-4, and piezometers P-21, P-22, P-24 and P-25. Monitoring well locations are shown in Figure A-1. Semi-annual samples are to be collected in the months of May and November, and annual samples are to be collected in November. Annual sampling of the Detection Monitoring wells meets the requirements for an engineered alternative under section 20380(e) of Title 27, CCR. CLs for groundwater sampled at the monitoring wells are shown in Table 2.

B. <u>SEEPAGE MONITORING:</u>

The landfill perimeter shall be monitored quarterly for seepage and the results reported semi-annually as part of the groundwater monitoring report. Seepage monitoring stations include any point at which seepage is found occurring from the disposal area.

C. FACILITIES MONITORING:

Annual Report: due July 31 of each year

The Discharger shall inspect all facilities quarterly to ensure proper maintenance and report annually. The facilities to be monitored shall include, but not be limited to:

- 1. Surface water ponding
- 2. Perimeter diversion channels and run-on/run-off control features
- 3. Interim and final cover system
- 4. Re-use areas

The Discharger shall provide photo documentation of conditions at locations that include, but are not limited to the landfill facilities listed in Part B above. Locations from which photographs are taken should be permanent stations such that they can be used in successive reports.

I, Bruce H. Wolfe, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

- 1. Has been developed in accordance with the procedures set forth in this Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in this Board's Order No. RB2-2007-0028.
- 2. Is effective on the date shown below.
- 3. May be reviewed or modified at any time subsequent to the effective date, upon written notice from the Executive Officer.

Bruce H. Wolfe

Executive Officer

Date Ordered: April 11, 2007

Attachments: Figure A-1 – Monitoring Well Location Map

Tables 1-2

Table 1 - Groundwater Monitoring Points, Parameters and Sampling Frequency Solano Garbage Company Landfill

Corrective Action Monitoring Program

(Wells G-1, G-2, GR-3R, GR-4, P-21, P-22, P-24, P-25)

Analytical Parameters	Laboratory Method	Sampling Frequency
VOCs	EPA Method 8260	Semi-Annual (2 nd & 4 th Quarters)

Detection Monitoring Program

(Wells G-1, G-2, G-3, G-4, G-5, G-6, G-7)

Analytical Parameters	Laboratory Method	Sampling Frequency Annual (4 th Quarter)	
VOCs	EPA Method 8260		
General Water Quality	various field and	Annual (4 th Quarter)	
Parameters:	laboratory methods	•	
pH, Electrical Conductivity, Total			
Dissolved Solids, Total Organic			
Carbon, Total Kjeldahl Nitrogen			
SVOCs	EPA Method 8270	Once every 5 years beginning 4 th Q 2007	
Dissolved Metals 1:	EPA Method 6010 or	Once every 5 years	
Arsenic, Barium, Cadmium,	metal-specific method ²	beginning 4 th Q 2007	
Copper, Chromium, Lead		•	
Mercury, Nickel, Vanadium, Zinc			
Additional Metals 1:	EPA Method 6010 or	Once every 5 years	
Antimony, Beryllium, Cobalt,	metal-specific method ²	beginning 4 th Q 2007	
Selenium, Silver, Thallium, Tin			
40 CFR 258 Appendix II		Once every 5 years	
constituents:		beginning 4 th Q 2007	
Pesticides	EPA Method 8081	,	
PCBs	EPA Method 8082		
Chlorophenoxy Herbicides	EPA Method 8151		
Cyanide	EPA Method 9010		
Sulfide	EPA Method 9030		

Table 1 Notes:

- This subset of the 40 CFR 258 Appendix I metals is used as a surrogate for the entire suite of Appendix I metals.
- 2 EPA methods: Arsenic (7060 or 6010), Barium (6010), Chromium (6010), Copper (6010), Lead (7421 or 6010), Mercury (7470), Nickel (6010), Vanadium (6010), Zinc (6010), Antimony (6010), Beryllium (6010), Cobalt (6010), Selenium (7741 or 7740), Silver (6010), Thallium (7841), Tin (6010)

Table 2 - Concentration Limits for Groundwater Solano Garbage Company Landfill

Constituent of Concern	Practical Quantitation Limit	US EPA Test Method	Concentration Limits (ppb)
Specified VOCs	A.J.HHILL	8260	
Acetone	20		100
Methylene chloride	10		50
Bromoform	10		50
Chloroform	10		50
bis(2-ethylhexyl)phthalate	10		50
Other VOCs	varies	8260	PQLs
SVOCs	varies	8270	PQLs
Metals ¹			_
Arsenic	7	7060 or 6010	PQL/Background ²
Barium	20	6010	PQL/Background ²
Cadmium	5	6010	PQL/Background ²
Chromium	10	6010	PQL/Background ²
Copper	10	6010	PQL/Background ²
Lead	5	7421 or 6010	PQL/Background ²
Mercury	1	7470	PQL/Background ²
Nickel	40	6010	PQL/Background ²
Vanadium	10	6010	PQL/Background ²
Zinc	20	6010	PQL/Background ²
Antimony	5	6010	PQL/Background ²
Beryllium	5	6010	PQL/Background ²
Cobalt	10	6010	PQL/Background ²
Selenium	10	7740 or 7741	PQL/Background ²
Silver	20	6010	PQL/Background ²
Thallium	5	7841	PQL/Background ²
Tin	50	6010	PQL/Background ²
Pesticides and PCBs	varies	8080	PQLs
Chloropheynoxy Herbicides	varies	8151	PQLs
<u>Cyanide</u>	10	9010	PQL

¹PQLs may vary based on the results of the laboratory's annual MDL survey and any sample dilution required because of matrix interferences. Metals data will provide supplemental information to the VOC and SVOC analyses and are not intended for use as indicator parameters apart from the VOC and SVOC analyses.

²Concentration Limit is the higher of either the routine PQL or the background value.

